

Serial No. 09/936,312

Attorney Docket No. 99M006

AMENDMENT**In the Claims**

Please amend the claim set to read as follows.

1. (Currently Amended) A process for the manufacture of a crystalline molecular sieve layer, which process comprises:
 - a) impregnating a porous support through at least one surface thereof, with an impregnating material which is not carbonised prior to deposition on the support of a crystalline molecular sieve layer,
 - b) hydrothermally growing a crystalline molecular sieve layer on a surface of the impregnated support; and
 - c) substantially completely removing the impregnating material,

wherein the impregnating material is an organic resin.
2. (Cancelled)
3. (Currently Amended) A process as claimed in ~~claim 2~~ claim 1 wherein the organic resin is a hydrocarbon resin.
4. (Original) A process as claimed in claim 3 wherein the hydrocarbon resin is an acrylic resin.
5. (Original) A process as claimed in claim 3 wherein the hydrocarbon resin is a hydrocarbon wax.
6. (Previously Presented) A process as claimed in claim 1 wherein the impregnating material substantially fills the pores of the support.

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7. (Original) A process as claimed in claim 1 wherein the surface on which the crystalline molecular sieve layer is grown has deposited thereon molecular sieve seed crystals prior to the hydrothermal growth, and wherein the porous support is impregnated before or after deposition of the molecular sieve seeds.
8. (Original) A process as claimed in claim 7 wherein the molecular sieve seeds are deposited prior to impregnation and the impregnating material substantially fills the pores of the support or the pores of the support and those between the seeds.
9. (Previously Presented) A process as claimed in claim 7 wherein the molecular sieve seeds are present as a discrete layer.
10. (Previously Presented) A process as claimed in claim 1 wherein the crystalline molecular sieve layer is an MFI type molecular sieve.
11. (Original) A process as claimed in claim 1 wherein a pre-impregnation masking layer is applied to the support prior to impregnation and is subsequently removed after impregnation.

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12. (Currently Amended) A process ~~as claimed in claim 11~~ for the manufacture of a crystalline molecular sieve layer, which process comprises:

a) impregnating a porous support through at least one surface thereof, with an impregnating material which is not carbonised prior to deposition on the support of a crystalline molecular sieve layer,

b) hydrothermally growing a crystalline molecular sieve layer on a surface of the impregnated support; and

c) substantially completely removing the impregnating material,

wherein a pre-impregnation masking layer is applied to the support prior to impregnation and is subsequently removed after impregnation and wherein the pre-impregnation masking material is polymethylmethacrylate.

13. (Previously Presented) A process as claimed in claim 1 wherein the porosity of the support is 30% by volume or greater.
14. (Previously Presented) A process as claimed in claim 1 wherein the crystalline molecular sieve present in the layer comprises non-contiguous molecular sieve crystals.
15. (Previously Presented) A process as claimed in claim 1 wherein the crystalline molecular sieve present in the layer comprises contiguous molecular sieve crystals.
16. (Previously Presented) A process as claimed in claim 1 wherein the crystalline molecular sieve present in the layer comprises contiguous molecular sieve crystals arranged as a membrane.
17. (Previously Presented) A process as claimed in claim 1 wherein the impregnation is undertaken for a period of 20 minutes or greater.

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18. (Currently Amended) A process ~~as claimed in claim 1~~ for the manufacture of a crystalline molecular sieve layer, which process comprises:

a) impregnating a porous support through at least one surface thereof, with an impregnating material which is not carbonised prior to deposition on the support of a crystalline molecular sieve layer,

b) hydrothermally growing a crystalline molecular sieve layer on a surface of the impregnated support; and

c) substantially completely removing the impregnating material,

wherein the porous support is partially impregnated, the impregnated support has molecular sieve seeds deposited thereon and the crystalline molecular sieve is derived from a synthesis solution which comprises colloidal silica.

19. (New) A process as claimed in claim 12 wherein the impregnating material is an organic resin.

20. (New) A process as claimed in claim 18 wherein the impregnating material is an organic resin.